

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

**REMARKS/ARGUMENTS**

Reconsideration and continued examination of the above-identified application are respectfully requested.

In the present amendment, claims 1, 3, and 44 have been amended. Support for the amendments can be found in the claims as originally filed and the sequence listing as filed. Claims 2, 4, 6-8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 45, 47, 49, 51, 53, 55, 57, 59-61, 63, 65, 67, 69, 71, 73, 75, 78-83, 86-87, 90-91, 94-95, 98-99, 102-103, 106-107, 110-111, 117-121, and 123 have been canceled. Claims 5, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 46, 48, 50, 52, 54, 56, 58, 62, 64, 66, 68, 70, 72, 74, 76, 77, 84, 85, 88, 89, 92, 93, 96, 97, 100, 101, 104, 105, 108, 109, 112-116, and 122 have been withdrawn. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

**Rejection of Claims 3-4 under 35 U.S.C. §112, first paragraph -- Written Description Requirement**

At pages 2-3 of the Office Action, the Examiner rejects claims 3 and 4 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the claims contain subject matter that is not described in the specification in a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. More particularly, the Examiner asserts that the term "inducer" is not defined in the specification. This rejection is respectfully traversed.

Applicant has replaced the term "inducer" with the phrase "tumor antigen," in claim 3 and have canceled claim 4. Applicant respectfully points out that a "tumor antigen" is clearly defined in the specification (page 2, lines 10-14) as a "protein or peptide contained in a tumor cell capable of inducing a tumor-specific cytotoxic T lymphocyte." Applicant has also replaced the transitional

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

phrase "consisting essentially of" in claim 3 with the phrase "consisting of." Applicant respectfully submits that the amendments to claims 3 and 4 render this rejection moot. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

**Rejection of Claims 7, 8, 44, and 45 under 35 U.S.C. §112, first paragraph -- Written Description Requirement**

At pages 5 of the Office Action, the Examiner rejects claims 7, 8, 44, and 45 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. The Examiner asserts that the claims contain subject matter that is not described in the specification in a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In particular, the Examiner asserts that the specification does not adequately describe any working examples of *in vivo* cancer treatment using the provided peptides and that the specification does not provide adequate written description for "treating." This rejection is respectfully traversed.

Applicant has canceled claims 7, 8, and 45 and have removed the phrase "for cancer treatment" from claim 44. Accordingly, Applicant respectfully submits that this rejection is moot. For these reasons, this rejection should be withdrawn.

**Rejection of Claims 1-4, 7, 8, 44, 45, and 117 under 35 U.S.C. §112, first paragraph -- Written Description Requirement**

At page 8 of the Office Action, the Examiner rejects claims 1-4, 7, 8, 44, 45, and 117 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the claims contain subject matter that is not described in the specification in a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

application was filed, had possession of the claimed invention. In particular, the Examiner asserts that the claims encompass a peptide consisting of a subsequence of one of the SEQ ID NOs recited in the instant claims as well as peptides having flanking sequences. With respect to claims 3 and 4, the Examiner states that the specification does not disclose how to make and/or use an inducer "consisting essentially of" the peptides recited in claims 1 and 2. The Examiner further objects to the sequence of SEQ ID NO 10 recited in claim 2. This rejection is respectfully traversed.

Applicant has amended the claims to exclude subsequences of one of the SEQ ID NOs recited in the claims as well as peptides having flanking sequences. In particular, Applicant has deleted the phrase "an amino acid sequence of" in claim 1 and has canceled claim 2. Applicant has also replaced the phrase "consists essentially of" with the phrase "consists of." Accordingly, Applicant respectfully submits that this rejection is rendered moot. Applicant respectfully requests the Examiner to withdraw this rejection.

**Rejection of claims 1-4, 7, 8, 44, 45, and 117 under 37 U.S.C. §112, first paragraph -- Enablement**

At page 12 of the Office Action, the Examiner rejects claims 1-4, 7, 8, 44, 45, and 117 under 35 U.S.C. §112, first paragraph, for enablement reasons. The Examiner asserts that the specification does not disclose how to make and/or use the present invention. In particular, the Examiner argues that the specification does not disclose how to make and/or use the inducer of CTL, as recited in claims 3 and 4. The Examiner states that the specification does not disclose the definition of "inducer." The Examiner further points out that the claimed "inducers" could include subsequences of the recited SEQ ID NOs in claims 1 and 2 and other undisclosed components. This rejection is respectfully traversed.

Applicant respectfully submits that this rejection is rendered moot by the present

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

amendments to the claims. Specifically, the term "inducer" in claim 3 has been replaced with the phrase "tumor antigen," as discussed above. Claims 2, 4, 7, 8, 45, and 117 are canceled. Also, the phrase "an amino acid sequence of" has been deleted in claim 1, as stated previously. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

**Rejection of claims 1-4, 7, 8, 44, 45, and 117 under 35 U.S.C. §112, second paragraph – Indefiniteness**

At pages 20 of the Office Action, the Examiner rejects claims 1-4, 7, 8, 44, 45, and 117 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner states that claims 1 and 2 are indefinite because, the Examiner alleges, it is not clear what is meant by the phrase "consisting of an amino acid" of the recited sequences. The Examiner also states that claims 3 and 4 are indefinite because, the Examiner alleges, it is not clear what is meant by the phrase "inducer of cytotoxic T lymphocytes" and the phrase "consists essentially of a peptide." The Examiner further states that claim 117 is indefinite because it is not clear whether the claim encompasses a kit "for screening a compound that comprises at least one peptide according to claim 2," or a kit containing "at least one peptide according to claim 2." The rejection is respectfully traversed.

Applicant respectfully submits that the amendments to claims 1, 3, and 44 and the cancellation of claims 2, 4, 7, 8, 45, and 117 render this rejection moot. Accordingly, Applicant respectfully requests withdrawal of this rejection.

**Rejection of claim 3 under 35 U.S.C. §102(b) – Shinn et al. (WO 97/22255 A1)**

At page 22 of the Office Action, the Examiner rejects claim 3 under 35 U.S.C. §102(b) as

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

being anticipated by Shin et al. (WO 97/22255 A1). The Examiner states that the phrase "wherein the inducer consists essentially of a peptide of claim 1" opens the claim to read on flanking sequences for SEQ ID NO. 3. This rejection is respectfully traversed.

The transitional phrase "consists essentially of" in claim 3 has been replaced with "consists of." Claim 3 does not read on flanking sequences for SEQ ID NO. 3. Applicant submits that Shin et al. does not anticipate claim 3. Accordingly this rejection should be withdrawn.

**Rejection of claims 3-4 under 35 U.S.C. §102(e) – Hoogetveen et al. (6,635,623 B1)**

At page 22 of the Office Action, the Examiner rejects claims 3-4 under 35 U.S.C. §102(e) as being anticipated by Hoogetveen et al. (U.S. Patent No. 6,635,623 B1). The Examiner states that the phrase "wherein the inducer consists essentially of a peptide of claim" 1 or 2 opens the claim to read on flanking sequences for SEQ ID NO: 1, 2, and 10. This rejection is respectfully traversed.

The transitional phrase "consists essentially of" in claim 3 has been replaced with "consists of." Claim 4 is canceled. Claim 3 does not read on flanking sequences for SEQ ID NOs. 1, 2, and 10. Applicant submits that Hoogetveen et al. does not anticipate claim 3. For at least this reason, the rejection should be withdrawn.

**Rejection of claims 3-4 under 35 U.S.C. §102(e) – Rudd et al. (5,432,076)**

At page 23 of the Office Action, the Examiner rejects claims 3-4, under 35 U.S.C. §102(e), as being anticipated by Rudd et al. (U.S. Patent No. 5,432,076). The Examiner relies on the interpretation that the phrase "wherein the inducer consists essentially of a peptide of claim" 1 or 2 opens claims 3 and 4 to read on flanking sequences for SEQ ID NO: 1 and 2. This rejection is respectfully traversed.

U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

The transitional phrase "consists essentially of" in claim 3 has been replaced with "consists of." Claim 4 has been canceled. Claim 3 does not read on flanking sequences for SEQ ID NOs. 1 and 2. Applicant submits that Rudd et al. does not anticipate claim 3. For at least this reason, the rejection should be withdrawn.

### **Priority**

At page 21 of the Office Action, the Examiner states that the filing date of claims 1-4, 7, 8, 44, 45, and 117 is the filing date of PCT/JP00/05220. Applicant respectfully points out, however, that the present application claims priority to a Japanese patent application filed August 5, 1999. See the Official Filing Receipt and Declaration. A certified copy of the Japanese priority document was filed with the U.S. Patent and Trademark Office on March 20, 2002. Acknowledgement is requested.

### **Objection of claim 1**

At page 23 of the Office Action, the Examiner objects to claim 1 because of the following informalities: Claim 1 recites SEQ ID NO that are non-elected groups.

The applicants wish to maintain appeal options and therefore the claims have not been amended to remove non-elected groups.

### **Information Disclosure Statement Fails to Comply with 37 CFR 1.98(a)(2)**

At page 24 of the Office Action, the Examiner asserts that the Information Disclosure Statement filed June 14, 2002, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion



U.S. Patent Application No. 10/062,257  
Amendment After Final dated August 20, 2007  
Reply to Office Action of May 18, 2007

RECEIVED  
CENTRAL FAX CENTER  
AUG 20 2007

which caused it to be listed; and all other information or that portion which caused it to be listed.

The information referred to therein has not been considered. The Examiner asserts that the Form 1449 filed June 14, 2002, does not provide a copy of the IPER listed on said Form 1449.

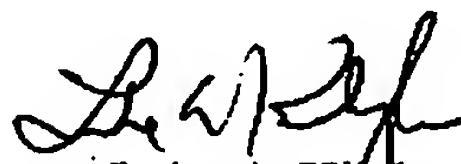
The applicants disagree. Attached is a U.S. Patent and Trademark Office date-stamped postcard that shows a copy was provided. A second copy is provided with this response. The Examiner is requested to show consideration of the IPER, which was properly and timely submitted.

#### CONCLUSION

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,

  
Luke A. Kilyk  
Reg. No. 33,251

Atty. Docket No. 3190-014  
KILYK & BOWERSOX, P.L.L.C.  
400 Holiday Court, Suite 102  
Warrenton, VA 20186  
Tel.: (540) 428-1701  
Fax: (540) 428-1720

Attachments: Copy of U.S.P.T.O. date-stamped postcard dated June 14, 2002 (1 pg.)  
Copy of International Preliminary Examination Report filed June 14, 2002 (6 pgs.)